

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors	:	Brown et al.
Ser. No.	:	08/621,631
Filing Date	:	March 26, 1996
For	:	Recovery of Metal Values
Examiner	:	Miller, E.
Art Unit	:	2204

Assistant Commissioner for Patents  
Washington, DC 20231



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## Election

Sir:

This paper is being filed in response to the Restriction Requirement mailed July 10, 2000 in the above-identified application.

### Amendment

Please amend claim 22 as follows:

22. (Amended) A process for selectively extracting a scandium metal value from an ore residue from a tantalum production process which includes fluorine, scandium and one or more solubilizable metal values, the solubilizable metal values including tantalum or niobium metal values, the process comprising:

separating and removing fluorine values from the ore residue by reacting the ore residue  
with a sulfuric acid solution to solubilize at least a portion of the tantalum or niobium metal  
values from the ore residue and produce an undissolved material;

separating the undissolved material;

reacting the undissolved material with sulfuric acid for a period of time, and under temperature and pressure conditions sufficient to liberate hydrogen fluoride gas and to generate a sulfated material;

leaching the sulfated material in water to solubilize at least a portion of the scandium metal values contained therein and generate an aqueous solution comprising said solubilized scandium metal values and a solid phase at least partially depleted in the scandium solubilized metal values;

contacting the aqueous solution with a organic medium comprising DEHPA, TBP and TDA in a diluent to generate an organic phase comprising scandium metal values;

selectively extracting solubilized scandium metal values from said organic phase [aqueous solution] by contacting said organic phase [aqueous solution] with a sodium hydroxide stripping agent to produce a solid phase comprising scandium metal values and separating the solid phase from the remaining organic phase [aqueous solution];

and drying and recovering the scandium metal values.

#### Current Status

Claims 3-22 are currently pending in the application. Applicants are being required to perfect their election of a single disclosed species for further prosecution in the present application, and to list all claims readable thereon.

#### Election

Applicants hereby confirm their election of the process for selectively extracting scandium metal values as disclosed in the Example of the present Specification (pages 15-17). This embodiment of the present invention is described in new claim 22 set forth above. The elected species has the following characteristics:

Metal Value	:	Scandium
Source Material	:	ore residue from tantalum/niobium production process
First Acid	:	sulfuric acid
Second Acid	:	sulfuric acid
Leaching Agent	:	water
Organic Medium	:	DEHPA, TBP, TDA in a diluent
Stripping Agent	:	sodium hydroxide

Applicants respectfully submit that claim 22 reads on the species. Claims 5 and 7-21 are generic.

Conclusion

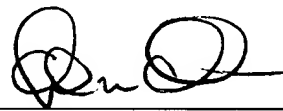
A favorable Office Action is respectfully solicited. The Examiner is invited to contact the undersigned at 336.607.7315 to discuss any matter relating to this application.

Respectfully submitted,

Date:

9/11/00

By:



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